



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Northwest Region
7600 Sand Point Way N.E., Bldg. 1
Seattle, WA 98115

Refer to:
OSB1997-0892

November 20, 1997

Dennis Williamson
Bureau of Land Management
Eugene District Office
P.O. Box 10226
Eugene, Oregon 97440-2226

RE: Conference Opinion for Tyrell Timber Sale in the Bureau of Land Management - Eugene District, that May Affect Oregon Coast Steelhead in the Oregon Coast Range Province [892]

Dear Mr. Williamson:

Attached is the National Marine Fisheries Service's (NMFS) Endangered Species Act (ESA) section 7 conference opinion (Opinion) for the proposed Tyrell Timber Sale in the Eugene District Bureau of Land Management (BLM). This action has been determined by the BLM as "likely to adversely affect" and not likely to jeopardize the continued existence or result in the destruction or adverse modification of proposed critical habitat of Oregon Coast steelhead (*Oncorhynchus mykiss*) and Oregon Coast coho salmon (*O. kisutch*). The effects determination was made by evaluating the environmental baseline (current aquatic habitat conditions) and predicting effects of the action on that baseline (see enclosed Opinion).

Although the NMFS expects some short term adverse effects to the environmental baseline from this action, the effects are expected to be minor because of project design and project timing. Additionally, mitigation in the form of road decommissioning and replanting for future large woody debris will result in improvements in environmental baseline conditions.

The NMFS is no longer conferencing on candidate species, and therefore, will no longer conference on potential effects



of projects on Oregon Coast coho salmon. Should Oregon Coast steelhead become listed under the ESA, or should critical habitat be designated, the NMFS expects the attached Opinion to serve as the basis for a biological opinion on implementation of the action, pursuant to 50 CFR § 402.10(d). Since the ESA does not have a prohibition against take of proposed species, an Incidental Take Statement is not issued with the attached Opinion.

If you have any specific questions, please contact Garwin Yip at (503) 230-5419.

Sincerely,

A handwritten signature in dark ink, appearing to read "William Stelle, Jr.", is written over a light blue rectangular background.

William Stelle, Jr.
Regional Administrator

Enclosures

**Endangered Species Act - Section 7
Conference**

CONFERENCE OPINION

Tyrrell Timber Sale

Agency: Bureau of Land Management, Eugene District

Conference

Conducted By: National Marine Fisheries Service
Northwest Region

Date Issued: June 26, 1997

Refer to: OSB1997-0892

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I. Introduction and Background

The objective of this conference is to determine whether the proposed Tyrrell Timber Sale is likely to jeopardize the continued existence of Oregon Coast (OC) steelhead or result in the destruction or adverse modification of critical habitat. A description of the proposed action is provided in Section II of this document.

The OC steelhead (*Oncorhynchus mykiss*) Evolutionarily Significant Unit (ESU)¹ was proposed as threatened under the Endangered Species Act (ESA) by the National Marine Fisheries Service (NMFS) (August 9, 1996, 61 FR 41541). The NMFS issued a six-month extension for a final listing determination for OC steelhead based on substantial scientific disagreement regarding the sufficiency and accuracy of data relevant to listing this ESU (August 18, 1997, 62 FR 43974).

The OC coho salmon ESU (*Oncorhynchus kisutch*) was proposed to be listed as threatened under the ESA by the NMFS (July 25, 1995, 60 FR 38011). Subsequent consideration of Federal and state conservation measures have resulted in a determination that a threatened listing of the ESU is not warranted (May 6, 1997, 62 FR 24588). The OC coho salmon ESU is currently considered to be a candidate for ESA listing. This determination is subject to review within three years. The NMFS is no longer conferencing on candidate species, and therefore, will not conference on potential effects of projects on OC coho salmon.

The proposed action has been determined as "likely to adversely affect" and not likely to jeopardize the continued existence of OC steelhead. The NMFS expects this action to adversely affect the environmental baseline. However, project design, timing, and expected mitigation will reduce these effects substantially enough to avoid jeopardizing the continued existence of OC steelhead. Mitigation includes actions that will improve the environmental baseline in addition to reducing potential adverse affects of the action.

1. For purposes of conservation under the Endangered Species Act, an Evolutionarily Significant Unit is a distinct population segment that is substantially reproductively isolated from other conspecific population units and represents an important component in the evolutionary legacy of the species (Waples 1991).

Because critical habitat has not been proposed or designated, this conference does not address destruction or adverse modification of critical habitat. Should OC steelhead be listed under the ESA, or should critical habitat be designated, the NMFS expects this Conference Opinion (Opinion) to serve as the basis for a biological opinion on implementation of this action, pursuant to 50 CFR § 402.10(d).

On October 10, 1997, the NMFS received a letter and biological assessment (BA) from the Bureau of Land Management (BLM), Eugene District, requesting a formal conference regarding the potential effects of Tyrrell Timber Sale on OC steelhead and OC coho salmon (USDI-BLM 1997). This Opinion has been completed pursuant to the ESA and its implementing regulations (50 CFR § 402), and constitutes formal conference for OC steelhead, proposed for listing under the ESA. Formal conferencing on the proposed action is concluded with the issuance of this Opinion.

The NMFS, in collaboration with other Federal agencies², has prepared guidance for determining the effects of human activities on anadromous fish species of concern (NMFS 1996). This guidance is based on a "Matrix of Pathways and Indicators" (Matrix), which is a simple yet holistic method of characterizing environmental baseline conditions and predicting the effects of human activities on those baseline conditions. The Matrix provides generalized ranges of functional values (i.e., properly functioning, at risk, and not properly functioning) for aquatic, riparian, and watershed parameters.

The NMFS acknowledges that the generalized values provided in the Matrix may not be appropriate for all watersheds within the range of anadromous salmonids. Development of more biologically appropriate matrices in specific physiographic areas is encouraged. The NMFS, in conjunction with the Oregon Department of Fish and Wildlife (ODFW) and Federal land management agencies, is in the process of appropriately modifying the Matrix for the Oregon Coast Range Province (this includes the proposed project area). For the purpose of this conference, the existing Oregon Coast Range Province interim

2. The other collaborating Federal agencies are the U. S. Forest Service, the Bureau of Land Management, and the U. S. Fish and Wildlife Service.

Matrix (dated June 14, 1996) was used to analyze the proposed action. This interim Matrix is included in Attachment 1 of this Opinion.

II. Proposed Action

The BLM proposes 15 acres of clearcut and 88 acres of density management thin in Fawn Creek (Siuslaw Section 7 Watershed). The purpose for the clearcut is to maintain a pollen buffer, thereby reducing pollen contamination for Tyrrell Seed Orchard managed land. The purposes for the thinnings are to reduce stand density, accelerate growth, and develop canopy layering toward providing late successional characteristics. The clearcut would reserve eight trees per acre for snags and course woody debris. Thirty acres would receive a light thinning, reserving 140 trees per acre, and 58 acres would receive a heavy thinning, reserving 40 trees per acre. There are no fish-bearing streams in the project area. Streams within the project area will have 50-foot no-cut buffers. The heavily thinned and clearcut areas will be replanted. Ground based logging may occur on sites with slopes less than 35%, and not within 200-feet of any stream channel. One-end suspension will be required within riparian areas and slopes greater than 35%. There will be 4,755 feet of temporary road construction and 990 feet of renovated road. The proposed action is consistent with NMFS (1997).

The BLM has incorporated several project design features in the proposed action that substantially reduce adverse effects to anadromous fish. These features include:

- C Thinning to accelerate tree growth for future large woody debris and late successional reserve characteristics, and planting to provide future large woody debris.
- C Renovating roads to reduce the potential for sedimentation.
- C Road construction on ridgetops and outside of the riparian reserves.
- C Cable yarding on slopes greater than 35%.
- C No fish bearing streams within the project area.

- C No new stream crossings to implement the proposed project.

Full project details are available in USDI-BLM (1997).

III. Biological Information and Critical Habitat

The listing status and biological information for OC steelhead are described in Attachment 1. While critical habitat has not been proposed or designated, Attachment 1 describes potential critical habitat elements for OC steelhead.

IV. Evaluating the Proposed Action

The standards for determining jeopardy are set forth in Section 7(a)(2) of the ESA, and defined in the implementing regulations (50 CFR § 402). Attachment 2 describes how the NMFS applies the ESA jeopardy standards. The OC steelhead is not currently listed and therefore there is no designated critical habitat. If critical habitat is proposed or designated, consultation would be reinitiated to determine if there will be destruction or adverse modification of critical habitat.

As described in Attachment 2, the first steps in applying the ESA jeopardy standards are to define the species' biological requirements and to describe the species' current status as reflected by the environmental baseline. In the next steps, the NMFS' jeopardy analysis considers how proposed actions are expected to directly and indirectly affect specific environmental factors that define properly functioning aquatic habitat essential for the survival and recovery of the species. This analysis is set within the dual context of the species' biological requirements and the existing conditions under the environmental baseline (defined in Attachment 1). The analysis takes into consideration the overall balance of beneficial and detrimental activities taking place within the action area. If the NMFS finds that the Federal action is likely to jeopardize the listed species the NMFS must identify any reasonable and prudent alternatives to the proposed action.

A. Biological Requirements. For this conference, the NMFS finds that the biological requirements of OC steelhead are best expressed in terms of environmental factors that define properly functioning freshwater aquatic habitat necessary for survival and recovery of the species. Individual environmental factors include water quality, habitat access, physical habitat elements, channel condition, and hydrology. Properly functioning watersheds, in which all of the individual factors operate together to provide healthy aquatic ecosystems, are also necessary for the survival and recovery of OC steelhead. This information is summarized in Attachment 1.

B. Environmental Baseline.

- 1. Current range-wide status of the species under the environmental baseline.** The OC steelhead ESU is not presently in danger of extinction. The NMFS is now considering whether it is likely to become endangered in the foreseeable future (Busby *et al.* 1996). In the absence of adequate population data, habitat condition provides a means of evaluating the status of these species for the environmental baseline assessment.
- 2. Action Area.** The "action area" is defined as "all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action" (50 CFR § 402.02). Thus, the "action area" for this conference includes areas downstream of the project area as well as the immediate project area itself.
- 3. Current status of the species under the environmental baseline within the action area.** Environmental baseline conditions within the action area were evaluated at the site and basin scale. This evaluation was based on the Oregon Coast Province Interim Matrix (see Attachment 1). This method assesses the current condition of instream, riparian, and watershed factors that collectively provide properly functioning aquatic habitat essential for the survival and recovery of the

species. The environmental baseline within the Siuslaw Section 7 Watershed is largely "not properly functioning," with a few indicators "at risk" (USDI-BLM 1997).

Based on the best information available on the current status of the species (Attachment 1) and the NMFS' assumptions given the information available regarding (1) population status, population trends, and genetics (page 3 of Attachment 2) and (2) the environmental baseline conditions within the action area, the NMFS concludes that the biological requirements of OC steelhead are currently not being met under the environmental baseline within the action area. Significant improvement in habitat conditions is needed to meet the biological requirements for survival and recovery of these species. Actions that do not maintain or restore properly functioning aquatic habitat conditions in the long term would be likely to jeopardize the continued existence of OC steelhead due to the high level of risk the species presently face under the degraded environmental baseline.

V. Analysis of Effects

A. Effects of Proposed Action. The effect determination for the proposed project was made using NMFS (1996) to evaluate the environmental baseline (current aquatic conditions) and to predict any effects of the action on that baseline. The effects of the action are expressed in terms of the expected effect (restore, maintain, or degrade) on each of the aquatic habitat factors in the project area, as described in the "Checklist for documenting environmental baseline and effects of the action" (Checklist) completed for the action (USDI-BLM 1997). The results of the Checklist for the action provides a basis for determining the overall effects on the environmental baseline in the project area.

Some short-term degradation in temperature, sediment, peak/base flows, drainage network increase, and road density and location may occur as a result of implementing the proposed action. In the long term, the proposed action is expected to maintain, or move toward restoration, all habitat indicators in the Siuslaw

Section 7 Watershed(USDI-BLM 1997). The balance of various aspects of the proposed project will move habitat toward restoration in areas where habitat is not properly functioning.

Potential adverse effects of the project and mitigating factors are discussed below.

C There will be temporary road construction for the timber sale, slightly increasing road density. However, the 4,755 feet of new road and 990 feet of renovated road would be subsoiled and decommissioned upon completion of the timber harvest, reducing road density in the Fawn Creek watershed. Most of the subsoiled roads in the heavily thinned areas will be planted. Potential adverse affects are minimized by the distance to stream channels, locating new roads on ridgetops, and lack of need for new stream crossings.

C Timber harvest may increase erosion and sedimentation, increase water temperatures, increase peak/base flows, and reduce the amount of large woody debris in the short term. However, thinning the riparian area would result in accelerated growth of existing trees that will provide future large woody debris and restoration in water temperatures. Replanting the clearcut and heavily thinned areas will limit potential adverse affects to erosion and sedimentation and peak/base flows.

C Timber hauling may increase turbidity, but adverse affects are minimized by maintaining the road and surfacing before and during hauling.

B. Cumulative Effects. "Cumulative effects" are defined as those effects of "future State or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation" (50 CFR § 402.02).

Significant improvement in the reproductive success of OC steelhead is unlikely without changes in agricultural, forestry, and other practices affecting riparian areas.

The NMFS is not aware of any future changes to existing State and private activities within the action area that would cause greater impacts to these species than presently occurs.

VI. Conclusion

The Tyrrell Timber Sale, as described in USDI-BLM (1997), is not likely to jeopardize the continued existence of OC steelhead. The NMFS used the best available scientific and commercial data to apply its jeopardy analysis (Attachment 2) when analyzing the effects, including cumulative effects, of the proposed action on the biological requirements of the species relative to the environmental baseline.

In reaching this conclusion, the NMFS has determined that the likelihood of survival and recovery of OC steelhead can be increased by providing sufficient prespawning survival, egg-to-smolt survival, and upstream/downstream migration survival rates through the protection of and restoration to properly functioning freshwater habitat within the Siuslaw Section 7 Watershed.

The BLM applied the NMFS' evaluation methodology (NMFS 1996) to the proposed action and found that the proposed action would maintain most of the essential habitat elements, with minor, short-term degradation of some essential habitat elements, like temperature, sediment, peak/base flows, drainage network increase, and road density and location. The action would move other habitat indicators, like temperature, peak/base flows, drainage network increase, road density and location, and riparian reserves, toward restoration in the long term. Project design features, such as: road construction on ridgetops and outside of the riparian reserves; cable yarding on slopes greater than 35%; no fish bearing streams within the project area; and no new stream crossings to implement the proposed project, substantially diminish short-term adverse effects to anadromous salmonids.

Because they are balanced by habitat improvements, adverse habitat effects from the proposed action would not reduce prespawning survival, egg-to-smolt survival, or upstream/downstream migration survival rates to a level that would appreciably diminish the likelihood of survival and recovery of OC steelhead.

VII. Conservation Recommendations

Section 7 (a)(1) of the ESA directs Federal agencies to utilize their authorities to further the purposes of the ESA by carrying out conservation programs for the benefit of the threatened and endangered species. Conservation recommendations are discretionary measures suggested to minimize or avoid adverse effects of a proposed action on listed species, to minimize or avoid adverse modification of critical habitat, or to develop additional information. The NMFS does not have any conservation recommendations to further minimize or avoid adverse effects of the proposed action on OC steelhead.

VIII. Reinitiation of Conference

Reinitiation of this conference is required: (1) if any action is modified in a way that causes an effect on the species that was not previously considered in the BA and in this Opinion; (2) new information or project monitoring reveals effects of the action that may affect the species in a way not previously considered; or (3) a new species is listed or critical habitat is designated that may be affected by the action (50 CFR § 402.16).

For example, future watershed or basin analyses may indicate that the existing environmental baseline is substantially different than indicated by this analysis. Reinitiation of this conference would be required for ongoing or continuing activities for which the environmental baseline is substantially different than originally assessed.

IX. References

Section 7(a)(2) of the ESA requires biological and conference opinions to be based on "the best scientific and commercial data available." This section identifies the information used in developing this Opinion in addition to the BAs provided by the BLM.

Busby, P.J., T.C. Wainwright, G.J. Bryant, L.J. Lierheimer, R.S. Waples, F.W. Waknitz, and I.V. Lagomarsino. 1996. Status review of west coast steelhead from Washington, Idaho, Oregon, and California. U.S. Dep. Commer., NOAA Tech. Memo. NMFS-NWFSC-27. 261 pages.

National Marine Fisheries Service (NMFS). 1996. Making ESA Determinations of Effect for Individual or Grouped Actions at the Watershed Scale. NMFS, Environmental and Technical Services Division, Habitat Conservation Branch, 525 NE Oregon Street, Portland, Oregon. 28 pages.

National Marine Fisheries Service (NMFS). 1997. Biological and conference opinion on implementation of Land and Resource Management Pland (USFS) and Resource Management Plans (BLM). March 18. NMFS, Habitat Conservation Division, 525 NE Oregon Street, Portland, Oregon. 75 pages plus 3 attachments.

United States Department of Interior - Bureau of Land Management (USDI-BLM). 1997. Letter and biological assessment, from Dennis Williamson (BLM), to William Stelle, Jr. (NMFS), for Tyrrell Timber Sale, that may affect Oregon Coast steelhead. Eugene District. 12 pages plus 1 map.

Waples, R.S. 1991. Definition of "species" under the endangered Species Act: application to Pacific salmon. NOAA Technical Memorandum NMFS F/NWC-194, Northwest Fisheries Center, Seattle, Washington. 29 pages.